

IT IS CLAIMED:

5 Sub A1 >  
1. In a method of treating a disease condition in a mammal responsive to treatment by interferon-tau (IFN $\tau$ ), an improvement comprising orally administering a therapeutically-effective amount of IFN $\tau$ .

10 15 Sub A1 >  
2. The method of claim 1, wherein IFN $\tau$  is orally-administered at a dosage of between about  $1 \times 10^5$  and about  $1 \times 10^8$  units per day.

20 25 Sub A1 >  
3. The method of claim 2, wherein IFN $\tau$  is orally-administered at a dosage of between about  $1 \times 10^6$  and about  $1 \times 10^7$  units per day.

35 40 Sub A1 >  
4. The method of claim 1, wherein the orally-administered IFN $\tau$  is ovine IFN $\tau$  (OvIFN $\tau$ ).

45 50 Sub A1 >  
5. The method of claim 1, wherein said OvIFN $\tau$  has the sequence represented as SEQ ID NO:2.

55 60 Sub A1 >  
6. The method of claim 1, wherein the orally-administered IFN $\tau$  is human IFN $\tau$  (HuIFN $\tau$ ).

65 70 Sub A1 >  
7. The method of claim 1, wherein said HuIFN $\tau$  has the sequence represented as SEQ ID NO:4.

75 80 Sub A1 >  
8. The method of claim 1, wherein said mammal is a human.

85 90 Sub A1 >  
9. The method of claim 1, wherein said mammal is a dog.

95 100 Sub A1 >  
10. The method of claim 1, wherein said disease condition is an immune system disorder.

105 110 Sub A1 >  
11. The method of claim 10, wherein said disease condition is an autoimmune disorder.

12. The method of claim 11, wherein said autoimmune disorder is selected from the group consisting of multiple sclerosis, type I (insulin dependent) diabetes mellitus, lupus erythematosus, amyotrophic lateral sclerosis, Crohn's disease, rheumatoid arthritis, stomatitis, asthma, allergies and psoriasis

13. The method of claim 12, wherein said autoimmune disorder is selected from the group consisting of multiple sclerosis, rheumatoid arthritis, lupus erythematosus and type I diabetes mellitus.

14. The method of claim 13, wherein said autoimmune disorder is multiple sclerosis.

15. A method of treating an autoimmune disorder in a subject, comprising

orally administering a therapeutically-effective amount of interferon-tau (IFN $\tau$ ) to said subject.

16. The method of claim 15, wherein said autoimmune disorder is selected from the group consisting of multiple sclerosis, rheumatoid arthritis, lupus erythematosus and type I diabetes mellitus.

17. A method of claim 16, wherein said autoimmune disorder is multiple sclerosis.

18. The method of claim 15, wherein IFN $\tau$  is orally-administered at a dosage of between about  $1 \times 10^5$  and about  $1 \times 10^8$  units per day.

19. The method of claim 18, wherein IFN $\tau$  is orally-administered at a dosage of between about  $1 \times 10^6$  and about  $1 \times 10^7$  units per day.